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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/525,505	03/15/2000	Kwi-Seok Choi	37307/DBP/Y35	9496

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EXAMINER

QUARTERMAN, KEVIN J

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 05/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/525,505

Applicant(s)

CHOI ET AL.

Examiner

Kevin Quarterman

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10,15,16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10,15,16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 25 January 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's Amendment B, filed 26 December 2001, has been entered and overcomes the objections to the specification and drawings and also the rejections under 35 USC § 112, 2nd paragraph.

Drawings

2. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 26 December 2001, has been approved.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10, 15-16, and newly added claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (USPN 5595519) in view of O'Boyle (USPN 5708327).

5. Regarding claims 1-2 and 15-16, Figure 3 of Huang shows a field emission display comprising first and second substrates (10, 24), a cathode (12) disposed on the top surface of the first substrate, an anode (22) disposed on the bottom surface of the second substrate, a phosphor screen (20) formed on the bottom surface of the anode, and an emitter (14) formed on the top surface of the cathode. Regarding claims 3, 5, 7,

and 9, the Examiner notes that electron emission elements formed of carbon fibers or graphite are well known in the art (See applicant's "Description of the Related Art" section). Regarding newly added dependent claims 18-20, applicant discloses in the background section of the specification that it is known in the art to replace a tip-based emitter with a broad area emitter (pg. 2, ln. 8-11).

6. Huang discloses the claimed invention except for the emitter having an alignment member of a magnetic material.

7. O'Boyle, in the analogous art of flat panel displays, teaches a flat panel display device comprising magnet field emitter elements. O'Boyle teaches the emitter elements include a ferromagnetic material for focusing the electrons emitted from the emitter elements (Abstract).

8. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide emitter of Huang with a magnetic material, as taught by O'Boyle, for aligning the electron emission element.

Response to Arguments

9. Applicant's arguments filed 26 December 2001 have been fully considered but they are not persuasive.

10. In response to applicant's argument, in regards to independent claim 1, that O'Boyle teaches aligning the emitted electrons themselves and does not teach an alignment member for aligning the electron emission member, the Examiner notes that it is elementary that the mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to

distinguish over the prior art. The Examiner also notes that applicant discloses that the alignment member is formed of a magnetic material, such as Fe, Ni, Fe₂O₃ or CO, and may be incorporated into the internal structure of electron emission member (pg. 5, ln. 24-36). Therefore since O'Boyle teaches an emitter comprising an electron emission element (52) including a dopant ferromagnetic material (56) used to produce a permanent magnet in the emitter elements (Abstract), the Examiner holds that the emitter of O'Boyle inherently possesses an alignment member for aligning the electron emission member of the emitter as claimed in independent claim 1.

11. In response to applicant's argument, in regards to independent claim 2, that Huang and O'Boyle do not teach aligning the electron emission member such that the longitudinal dimension of the electron emission member is substantially vertically extended from the cathode toward the phosphor screen and the anode, the Examiner holds that the structure of O'Boyle inherently possesses those functional characteristics, since there is no structural difference between the emitter of O'Boyle and that claimed in independent claim 2 of the instant application (See MPEP § 2112.01).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rasmussen (US 6008577) discloses a flat panel display with a magnetic focusing layer.

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2879

14. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (703) 308-6546. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Kevin Quarterman
Examiner
Art Unit 2879

kq 
May 22, 2003


Vip Patel
Primary Examiner
Art Unit 2879